

AMENDMENTS TO THE CLAIMS

1-2. (Cancelled)

3. (Currently Amended) ~~The method of claim 2 wherein said step of determining a transfer interval further comprises:~~ A method for inserting asynchronous data into a synchronous data stream comprising:

receiving information including a first time value when said asynchronous data may be used;
determining a transfer interval for said asynchronous data;
inserting said asynchronous data into said synchronous data stream at a time prior to said
first time value by an amount that is greater than or equal to said transfer interval;
determining the file size of said asynchronous data;
determining a data transfer rate for said asynchronous data;
dividing said file size by said data transfer rate to calculate a duration;
determining the ratio of data stream bandwidth available for transfer of said asynchronous data; and
modifying said duration by multiplying said duration by the inverse of said ratio.

4. (Original) The method of claim 3 wherein said step of modifying said duration further comprises:

obtaining a connect time; and
adding said connect time to said duration.

5. (Original) A method for inserting first asynchronous data and second asynchronous data into a synchronous data stream comprising:

receiving information comprising a first time value when said first asynchronous data may be used and a second value time when said second asynchronous information may be used;
determining a first transfer interval for said first asynchronous data;
determining a second transfer interval for said second asynchronous data; and

commencing insertion of said first asynchronous data into said synchronous stream at a time prior to said second time value by a period of time greater than or equal to the sum of said first transfer interval and said second transfer interval.

6. (Original) A method for inserting first asynchronous data and second asynchronous data into a synchronous television broadcast stream comprising:

receiving information comprising a first time value when said first asynchronous data may be used and a second value time when said second asynchronous information may be used;

determining a first transfer interval for said first asynchronous data;

determining a second transfer interval for said second asynchronous data; and

commencing insertion of said first asynchronous data into said synchronous television broadcast stream at a time prior to said second time value by a period of time greater than or equal to the sum of said first transfer interval and said second transfer interval.

7-8. (Cancelled)

9. (Currently Amended) ~~The method of claim 7 wherein said step of determining a transfer interval further comprises:~~

A method for inserting asynchronous data into a synchronous television broadcast stream comprising:

receiving information including a first time value when said asynchronous data may be used;

determining a transfer interval for said asynchronous data;

inserting said asynchronous data into said synchronous television broadcast stream at a time prior to said first time value by an amount that is greater than or equal to said transfer interval;

determining the file size of said asynchronous data;

determining a data transfer rate for said asynchronous data;

dividing said file size by said data transfer rate to calculate a duration;

determining the ratio of data stream bandwidth available for transfer of said asynchronous data; and

modifying said duration by multiplying said duration by the inverse of said ratio.

10. (Currently Amended) The method of claim [[7]] 9 wherein said step of modifying said duration further comprises:

obtaining a connect time; and
adding said connect time to said duration.

11. (Cancelled)

12. (Currently Amended) ~~The system of claim 11 wherein said software program further comprises:~~

A system for inserting asynchronous data into a synchronous television broadcast stream comprising:

a database containing asynchronous data;

an insertion controller containing a processor and program memory;

a software program operating on said insertion controller operable to determine a transfer interval for said asynchronous data and to commence insertion of said asynchronous data into said synchronous television broadcast stream at a time greater than or equal to the duration of said transfer interval prior to a time when said asynchronous data may be utilized; and

a first software routine operable to determine a transfer rate based on total data stream bandwidth and bandwidth utilized by non-metadata transfers.

13. (Currently Amended) ~~The system of claim 11 wherein said software program further comprises:~~

A system for inserting asynchronous data into a synchronous television broadcast stream comprising:

a database containing asynchronous data;

an insertion controller containing a processor and program memory;

a software program operating on said insertion controller operable to determine a transfer interval for said asynchronous data and to commence insertion of said asynchronous data into said synchronous television broadcast stream at a time greater than or equal to the duration of said transfer interval prior to a time when said asynchronous data may be utilized; and

a second software routine operable to advance in time said ~~commencement of said~~ insertion of said asynchronous data by a period of time greater than or equal to a data access latency value.

14. (Cancelled)

15.(Currently Amended) ~~The system of claim 14 wherein said software program further comprises:~~

A system for inserting asynchronous data into a synchronous television broadcast stream comprising:

a server containing asynchronous data;

an insertion controller;

a software program operating on said server operable to determine a transfer interval for said asynchronous data and to commence insertion of said asynchronous data into said synchronous television broadcast stream at a time greater than or equal to the duration of said transfer interval prior to a time when said asynchronous data may be utilized; and

a first software routine operable to determine a transfer rate based on total data stream bandwidth and bandwidth utilized by non-metadata transfers.

16. (Currently Amended) ~~The system of claim 14 wherein said software program further comprises:~~

A system for inserting asynchronous data into a synchronous television broadcast stream comprising:

a server containing asynchronous data;

an insertion controller;

a software program operating on said server operable to determine a transfer interval for said asynchronous data and to commence insertion of said asynchronous data into said synchronous television broadcast stream at a time greater than or equal to the duration of said transfer interval prior to a time when said asynchronous data may be utilized; and

a second software routine operable to advance in time said ~~commencement of said~~ insertion of said asynchronous data by a period of time greater than or equal to a data access latency value.

17. (Original) A system for inserting asynchronous data into a synchronous television broadcast stream comprising:

a database containing first asynchronous data and second asynchronous data;

an insertion controller containing a processor and program memory; and

a software program operating in said insertion controller operable to determine a first transfer interval for said first asynchronous data and a second transfer interval for said second asynchronous data and to commence insertion of said first asynchronous data into said synchronous television broadcast stream at a time, greater than or equal to the duration of the sum of said first transfer interval and said second transfer interval, prior to a time when said second asynchronous data may be utilized.

18. (Original) The system of claim 17 wherein said synchronous data stream is an audio/video stream.

19. (Original) The system of claim 17 wherein said software program further comprises:

a first software routine operable to determine a first transfer rate and a second transfer rate based on total data stream bandwidth and bandwidth utilized by non-metadata transfers.

20. (Original) The system of claim 17 wherein said software program further comprises:

a second software routine operable to advance in time said commencement of said insertion of said first asynchronous data by a period of time greater than or equal to the sum of a first data access latency value for said first asynchronous data and a second data access latency value for said

second asynchronous data.

21. (Original) A system for inserting asynchronous data into a synchronous television broadcast stream comprising:

a server containing first asynchronous data and second asynchronous data;

an insertion controller; and

a software program operating in said server operable to determine a first transfer interval for said first asynchronous data and a second transfer interval for said second asynchronous data and to commence insertion of said first asynchronous data into said synchronous television broadcast stream at a time, greater than or equal to the duration of the sum of said first transfer interval and said second transfer interval, prior to a time when said second asynchronous data may be utilized.

22. (Original) The system of claim 21 wherein said software program further comprises:

a first software routine operable to determine a first transfer rate and a second transfer rate based on total data stream bandwidth and bandwidth utilized by non-metadata transfers.

23. (Original) The system of claim 21 wherein said software program further comprises:

a second software routine operable to advance in time said commencement of said insertion of said first asynchronous data by a period of time greater than or equal to the sum of a first data access latency value for said first asynchronous data and a second data access latency value for said second asynchronous data.